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09/389,942	09/03/1999	THOMAS W. MEYER		6071

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81 N. STATE STREET
CONCORD, NH 03301

EXAMINER

DONAGHUE, LARRY D

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/389,942

Applicant(s)

MEYER ET AL.

Examiner

Larry D. Donaghue

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 and 29-31 is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21-28, 32, 33 and 39-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 1-34 and 39-40 are presented for examination.
2. Claims 35-38 have been cancelled.
3. Claims 18-20 and 29-31 are allowed.

4. The rejection is maintained and set forth below.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 15, 39 and 40 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. the ability to invent a process of wherein the embedding is effected at substantially greater than a specified speed expressed in terms of bits per second of executable code in the media file. critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The disclosure fails to clearly and concisely provide a means of teaching that will support a claim of any speed. The Examiner give full faith and credit to the enablement of the invention (in other words that it actually runs) but the Disclosure does not provide any evidence to determine what speed the invention can operate at. These limitations should be deleted.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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1. Claims 1 - 6, 8-11,13,15,21,22,24-25,32-33 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by **Rhoads** et al USPN 6,411,725 with a continuation date of **July 27, 1995**.

NOTE:

- Claim the claims state media file - specific types of data such as audio, video, 3-D and advertisements are considered data type and carry no patentable weight.
- Claim limitations such as MP3 and other formats are standard formats for data and carry no patentable weight.

Claim 1

Rhoads anticipates a process for supplementing pre-prepared media digital file content to be performed by a digital playback apparatus with supplemental digital program content constituting a supplemental media file, that comprises, preparing such supplemental digital program content in the form of executable code representing said supplemental media file; and embedding the executable code representing said supplemental media file into the pre prepared media file for execution by the playback apparatus supplementary to the playback of the pre-prepared media file content.

Examiner's Remarks

Rhoads in the Abstract has both a video file and auxiliary information which is embedded.

The actions to link are performed during playback as per the Abstract. Figure 1A shows the overview of the process.

Claim 2

The process of claim 1 wherein the media file has not been pre-prepared to contain such executable code, and the code is seamlessly embedded in the media file as supplemental digital program sequences of executable code representing said supplemental media file.

Examiner's Remarks

As per the rejection of claim 1 and #114 of Figure 1A.

Claim 3

The process of claim 2 wherein the media digital file program content has been pre-prepared from the group consisting of audio, video, image, 3-D, database information and combinations.

Examiner's Remarks

Video as per claim 1.

Claim 4

The process of claim 3 wherein the sequences of executable code are prepared in a computer program format.

Examiner's Remarks

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Abstract the video sequence and embedding is executable as per #114 of Figure 1A.

Claim 5

The process of claim 4 wherein the sequences of executable code are prepared from the group consisting of computer-programmed Java class files, Macromedia Shockwave, Flash, binary executables, byte codes, Visual Basic and Java Script.

Examiner's Remarks

Abstract the video sequence and embedding is executable (binary executable) as per #114 of Figure 1A.

Claim 6

The process of claim 4 wherein the program content of said sequences of executable code are selected as one or more of graphic, interactive, and e-commerce content.

Examiner's Remarks

Video objects are graphic as per claim 1.

Claim 8

The process of claim 3 wherein the media file has been pre prepared to comprise audio program format and the embedded executable code is prepared to provide image supplementation.

Examiner's Remarks

As per claim 1

Claim 9

The process of claim 1 wherein the embedding in the media file is effected at predetermined time intervals.

Examiner's Remarks

The linking would require a predetermined interval to enable the seamless aspect.

Claim 10

The process of claim 1 wherein the execution of the code is synchronized with the playback of the media files.

Examiner's Remarks

As per claim 1.

Claim 11

The process of claim 1 wherein said embedding of the executable code into the media file is effected seamlessly.

Examiner's Remarks

Seamlessly is a broad term the reference is interpreted as being able to provide the link seamlessly.

Claim 13

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The process of claim 1 wherein the embedding is effected by steganographic techniques.

Examiner's Remarks

Abstract - steganographic techniques are employed.

Claim 21

The process of claim 13 wherein the executable code is transformed into a bit stream and inserted and embedded at selected locations in the media file identified as locations

Examiner's Remarks

Rhoads, Col 6, lines 1 -35.

Claim 22

The process of claim 1 wherein prior to the encoding embedding of the executable code into the media file, the media file is subjected to a digital watermarking process.

Examiner's Remarks

Abstract -watermarking is employed.

Claim 24

A system for flexibly adding supplemental digital program content representing a supplemental media file to the playback of a pre prepared media digital file by digital playback apparatus, comprising, means for modifying the pre-prepared media file to embed sequences of executable code therein representing such supplemental program content media file; means provided in the digital playback apparatus for decoding the embedded code representing said supplemental media file during playback of the modified media file at the digital playback apparatus; and, in addition to means for playing back the pre-prepared a content of the media file, means provided at the digital playback apparatus responsive to the decoding for also presenting thereat the supplemental program content embedded media file.

Examiner's Remarks

As per claim 1.

Claim 25

The system of claim 24 wherein the executable code sequences are selected to contain one or more of graphic, interactive and e-commerce program content.

Examiner's Remarks

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Graphics as per claim 1

Claim 32

The system of claim 24 wherein the modifying means comprises steganographic coding means and wherein means is provided for transforming the executable code into a bit stream and for inserting and embedding bits at selected locations in the media file, identified as locations

Examiner's Remarks

Rhoads, col. 6, lines 1 - 35.

Claim 33

The system of claim 24 wherein means is provided, operable prior to the encoding-embedding of the executable code into the media file, for subjecting the media file to a digital watermarking process.

Examiner's Remarks

As per claim 22.

Claim 35

A method of conducting advertising and e-commerce business through an expanded use of digital media playing apparatus, that comprises, seamlessly embedding in digital entertainment media files pre prepared for entertainment playback by said apparatus, executable code representing supplementary digital advertising and e-commerce business solicitation program content media file; and modifying said apparatus to enable also decoding of said code by the apparatus so as to enable playback at said apparatus of said business solicitation program content media file as a supplement to the playback of the entertainment file thereby to provide business solicitation opportunities not previously provided at such apparatus.

Examiner's Remarks

As per claim 1.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7, 12, 14, 16, 17, 23, 27, 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Rhoads as per above in view of Ebisawa (6,539,544).

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Claim 7

The process of claim 6 wherein said program content includes one or more of advertising, transactional advertising, interactive music videos, and e-commerce.

Examiner's Remarks

Rhoads does not explicitly teach the linking of ads in the data link. It is Ebisawa who teaches linking advertisements (**Ebisawa**, Col 1, lines 30 - 55) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to link advertisements as data because Advertisements generate revenue.

Claim 12

The process of claim 11 wherein a checksum is used during the execution of the code at the playback, to verify that the embedded executable code has been extracted correctly.

Examiner's Remarks

Official Notice is taken that checksums are well known in the art and would have been obvious to one of ordinary skill at the time of invention because the use of checksums provides for data integrity.

Claim 14

The process of claim 13 wherein the encoding of the executable code in the media file is effected by one of low-bit encoding and frequency domain low-bit encoding.

Examiner's Remarks

Official Notice is taken that low-bit encoding and frequency domain low-bit encoding are well known in the art and would have been obvious to one of ordinary skill at the time of invention because the use of low-bit encoding and frequency domain low-bit encoding provides for data encoding.

Claim 16

The process of claim 1 wherein the media file is an MPEG audio file containing an MP3 audio stream.

Examiner's Remarks

Official Notice is taken that providing a conversion from MPEG to MP3 is common and would have been known to one of ordinary skill in the art at the time of invention, because video display of different types improves flexibility.

Claim 17

The process of claim 16 wherein, in the encoding process, the executable code is unsynchronized from synchronization bytes of the audio stream and encapsulated in ID3v2 format before insertion at the beginning of the MP3 audio stream from the audio file.

Examiner's Remarks

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The limitations of claim 17 are inherent to perform the limitations of claim 16.

Claim 23

The process of claim 1 wherein the pre-prepared media file is an MP3 file and the executable code is seamlessly embedded therein and prepared to provide the supplemental program content selected from the group consisting of transactional advertising, games, polls, contests, interactive music videos and e-commerce.

Examiner's Remarks

Rhoads does not limit itself to a current standard such MP3 when video objects and embedding are taught (**Rhoads**, Abstract). However, it is **Ebisawa** who teaches games. Therefore, it would be obvious to one of ordinary skill in the art at the time of invention because adding advertisement to video data provides the means for advertising.

Claim 26

The system of claim 25 wherein said program content includes one or more of advertising, games, polls, contests, interactive music videos and e-commerce.

Examiner's Remarks

As per claim 25

Claim 27

The system of claim 24 wherein the media file is an MPEG audio file containing an MP3 audio stream.

Examiner's Remarks

Rhoads does not limit itself to one format. Rhoads teaches video objects. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use current formats for video such as the MPEG and MP3 format, because they were current..

Claim 28

System of claim 27 wherein the modifying means comprises means for unsynchronizing the executable code from synchronization bytes of said audio stream and encapsulating the code in ID3v2 format before insertion at the beginning of the MP3 audio stream from the audio file.

Examiner's Remarks

As per claim 17.

Claim 34

The system of claim 24 wherein the pre-prepared media file is an MP3 file and the executable code is seamlessly embedded therein and prepared to provide supplemental program content selected from the group consisting of transactional advertising, games, polls, contests, interactive music videos and e-commerce.

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Examiner's Remarks

As per claim 23.

8. Applicant's arguments filed 04/18/2005 have been fully considered but they are not persuasive.

9. Claims 15, 39 and 40 have been rejected under 35 U.S.C. 112, first paragraph, as unsupported by the disclosure as to "what speed the invention can operate at".

Applicants would respectfully request reconsideration of this holding calling the attention of the Office to page 4 of the specification which states that more than 3000 bits of executable code per second are embedded in an MP3 audio file encoded at a bit-rate of 128,000 bits/sec. In Table 1, on page 17 of the application, achieved rates of "2800 bits/sec,," "5600 bits/sec," and "11,200 bits/sec." are disclosed. These rates establish the range of 1000's of bits/second as claimed.

Applicant merely stated that such, applicant has failed to show how such a thing is done .

10. Claims 1-6, 8-11,13,15, 21, 22, 24-25, 32-33, 35 have been rejected under 35 U.S.C.102 (e) as anticipated by the patent to Rhoads et al., 6,411,725. The Rhoads patent, however, only describes the encoding of "object specific information" into a video signal, and then associating that information with an action. The information they describe is merely short names or identifiers such as a URL (column 2, lines 31-33. 44-48) or a "short title or number" (column 7, line 12). The viewing system must then use an external network (column 14, lines 18-64) to retrieve additional information such as "still image, audio, or video content". Rhoads thus does not teach or anticipate the embedding of anything beyond a simple label in audio or video content. Although, in Rhoads, the action performed in response to this label can include "executing a program," their program must be predefined and already stored on the playing device, prior to the media file being decoded. In applicants' system, to the contrary, an entire new program can be placed directly in the media, removing the Rhoads significant limitation of only being able to use predefined actions.

Applicant claims are in the alternative , Roads teaches interactive advertising.

11. In addition, applicants' system also removes the further significant limitation that Rhoads encounters when the content is used in a non-networked environment. Since their techniques, unlike applicants', do not teach the embedding of large amounts of data, but only the embedding of small amounts of data that are then used to query an external network, they are unable to be of any use in situations where people are using media files while disconnected from the network (e.g., walking around with an iPod). Since applicants' system teaches the embedding of large amounts of data, a novel and rich interactive experience can be provided to the viewer, even when offline. Rhoads et al are, moreover, very concerned with minimizing the size of the data to be embedded -- a limitation which applicants do not encounter with their techniques; and they even try to avoid placing an entire web address in the data stream: "Most importantly, fewer bits need to be transmitted since only an ID and not the complete link are required" (col 17, lines 113-20). In addition, Rhoads et al also discuss embedding these small tags into objects in a

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game (col 17, lines 59-61). This is in decided contrast to what applicants teach, which is the embedding of an entire game inside an audio file.

Applicant failed to set forth any size limitation on the file, (*i.e. a file greater than a predetermined size).

12. The patent to Rhoads et al also discusses (col 19, lines 26-30) adding links to advertisements in billboards in the video. As previously described, these are mere links to the advertisements, not the advertisements themselves, as applicants' system enables. Similarly, they describe the placement of a watermark (col 20, lines 26-29) "to allow the user to access the website" for the movie, and discuss watermarking clothing (col 20, lines 42-44) to link "to the page on the web site to buy the article". These are all different from the techniques which applicants' technology allows, which is to embed the web sites and advertisements directly, without the necessity of the extra steps of querying an external server and downloading additional content from a web site.

Applicant is reminded that the claims define the invention. Applicant assertion that the technique is different does not define the claim element that distinguishes the claimed invention over the prior art of record.

13. Regarding the specific Office comments on Claims 4-6, 8, 10-11, 13, 21, 24, 25 & 35, Rhoads et al only describes the embedding of small identification codes in video or audio streams, not executable code in a "computer program format." In accordance with #114 in their Figure 1A, the box only describes a preprogrammed response to a simple identification code, such as a URL. They do not teach anything comparable to applicants' embedding of an entire computer program into a media file, as now claimed.

In particular, there is a major distinction between the small pieces of data that Rhoads et al consistently teaches placing in a media file, and what applicants teach: placing an entire executable program, which is several orders of magnitude larger. A small identifier such as a URL cannot be compared to the power of a complex executable program such as Java, Visual Basic, or Flash code, written in a Turing-complete language. Their system suffers from the burdensome limitation of only being able to encode small pieces of data, so it needs to be connected to a larger database and to download content over an external network, as shown in Figures 1B, 8 and 9, in order to be able to present any interesting content. This is because Rhoads et al does not solve the problem solved by applicants of embedding large, complex, interactive programs inside a media file.

As for Claims 22 & 33, applicants teach the use of their techniques in combination with the very different techniques employed in a typical robust watermarking process, such as that described in the Rhoads system. Based on applicants' different teachings, if their system is used to embed executable code into a media file that has already been watermarked, both sets of information are preserved, since they embed the data in fundamentally different ways that do not conflict.

Applicant is reminded that the claims define the invention. Applicant assertion that the technique is different does not define the claim element that distinguishes the claimed invention over the prior art of record.

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Turning, now, to the 35 U.S.C. 103 (a) rejection of claims 7,12,14,16,17, 23, 27, 28 and 34 as the "obvious" incorporation in the Rhoads et al system of the advertising linking of the Ebisawa patent 6,539,544, neither Rhoads et al nor Ebisawa teaches the embedding of games or advertising directly into the media. As mentioned previously, Rhoads et al only teach the embedding of a link to a web site that may contain ads. Ebisawa also does not teach the embedding of ads into the media. It only describes a system for the automatic downloading of advertisements into a game, and disabling that game if it is disconnected from the network that provides for the download. Both of these systems, moreover, do not work when disconnected from the network, which is a problem admirably solved by applicants' techniques.

Ebisawa taught that the original advertisement was embedded, see figure 8, element 83,85, and 87.

14. It should also be noted that claims 16,17, 27 & 28 do not describe what the examiner terms the "conversion from MPEG to MP3", but instead describe embedding data into a normal MPEG layer III file, commonly termed an mp3, which consists of a MPEG containing an mp3 audio stream. This is merely a way to accurately describe the embedding of data into an mp3.

Again applicant is directed to address the claim limitations, when presenting an argument.

Claims 23, 25, 26 & 34, furthermore, similarly define over any such proposed combination of the reference patents, since Ebisawa teaches only the downloading of advertising into a game, not anything even similar to applicants' technique of placing "transactional advertising, games, polls..." into a media file. These are two completely different operations.

Applicant claims are in the alternative , Roads and Ebisawa taught interactive advertising.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

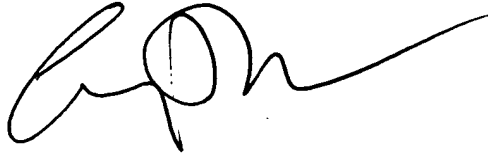
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larry D. Donaghue whose telephone number is 571-272-3962. The examiner can normally be reached on M-F 8:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be "John Follansbee", written in a cursive style.